From: **Dawn Ioven/R3/USEPA/US**
Sent: 3/15/2012 12:33:34 PM

To: Kelley Chase/R3/USEPA/US@EPA
CC: Richard Fetzer/R3/USEPA/US@EPA
Subject: Fw: EPA Data for 11 Homewells - Dimock

Hi, Kelley. I took a look a the e-mail that I sent you on 7 March 2012 to verify reported detection limits and risk-based screening levels. I had run through that data very quickly when I received it to provide a preliminary summary, but performed a more thorough review of the findings when I was preparing the individual homewell memos. I did find a couple mistakes in the 7 March 2012 e-mail, but nothing that impacts the conclusions described in the subsequent memos. I've highlighted corrections and additional comments in red print below. If you have any questions, please let me know. Thanks.

Dawn

Dawn A. Ioven, toxicologist
U.S. EPA - Region III
(3HS41)
1650 Arch street
Philadelphia, PA 19103
215.814.3320

----- Forwarded by Dawn Ioven/R3/USEPA/US on 03/15/2012 12:02 PM -----

From: Dawn Ioven/R3/USEPA/US
To: Richard Fetzer/R3/USEPA/US@EPA, Kelley Chase/R3/USEPA/US@EPA
Cc: johnson.eric@epa.gov
Date: 03/07/2012 03:01 PM
Subject: EPA Data for 11 Homewells - Dimock

I reviewed the analytical summaries for the 11 homewells in Dimock; my initial impressions are provided below. Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Dawn

Method Detection Limit (MDL) or Quantitation Limit (QL) or Reporting Limit (RL) > Screening Level (SL):

methanol - QL = 10,000 ug/L; SL = 7800 ug/L

2-methoxyethanol - MDL = 760 ug/L; SL= ~~780 mg/L~~ 78 ug/L

For 2-methoxyethanol, on 7 March 2012, I picked up the cited MDL (760 ug/L) from a few of the sampling results; however, in reviewing additional data sheets just now, I see that the MDL could change from sample-to-sample. The QL for this compound is more consistent than the MDL, even though levels lower than the QL can be detected (and would be reported) by the lab. In the data summaries, the QL for 2-methoxyethanol is reported as either 5 mg/L, 10 mg/L, 5 ug/L or 10 ug/L, depending upon the sample. I think there is a unit reporting error here, but I'm not sure which units are correct.

lithium - QL = 200 ug/L; SL = 31 ug/L

thallium - QL = 1 ug/L; SL = 0.16 ug/L

DBCP - QL = 0.5 ug/L; SL = 0.032 ug/L

1,2,4,5- tetrachlorobenzene - QL = 5 ug/L; SL = 1.2 ug/L

1,1,1-trichloroethane - QL = 0.5 ug/L; SL = ~~0.41~~ **7500** ug/L

1,1,1-Trichloroethane now drops off this list.

1,2,3-trichloropropane - QL = 0.5 ug/L; SL = 0.065 ug/L

Of the chemicals listed above, the greatest potential for missing noteworthy contamination is for lithium, thallium, DBCP, 1,2,3-trichloropropane **and, possibly, 2-methoxyethanol (depending on the true QL)**. However, the data set, really isn't demonstrating significant contamination, with the exception of lithium in HW06 and HW24 and methane in HW12.

A very limited number of data points (including glycols) were rejected during validation, but this has no adverse impacts on the overall quality of the data or related conclusions.

Preliminary Findings in Excess of SLs:

HW01 - no contaminants of concern

HW02 - total coliform = 82 cfu/100 mL; SL = 0 (based on potential for fecal coliform); no fecal coliform
arsenic = 4.0 ug/L; SL = 4.5 ug/L; MCL = 10 ug/L
no significant risk

HW04 - no contaminants of concern

HW05 - no contaminants of concern

HW06 - fluoride = 0.63 ug/L; SL = ~~0.62~~ **620** ug/L
arsenic = 7.6 ug/L (HW06) and 6.3 ug/L (HW06-F); SL = 4.5 ug/L; MCL = 10 ug/L
chromium = 10.8 ug/L; SL (Cr+6) = 3.1 ug/L; SL (Cr+3) = 16,000 ug/L
chromium = ND in HW06-F
lithium = 236 ug/L (HW06) and 228 ug/L (HW06-F); SL = 31 ug/L
sodium = 83,700 ug/L (HW06) and 83,300 ug/L (HW06-F); SL = 20,000 ug/L
a bit complicated; will prepare detailed memo explaining findings

HW08A - total coliform = 54 cfu/100 mL; SL = 0 (based on potential for fecal coliform); no fecal coliform

HW12 - methane = 52,000 ug/L; SL = 28,000 ug/L (based on explosion hazard, Department of Interior)
arsenic = 6.0 ug/L; SL = 4.5 ug/L; MCL = 10 ug/L
no significant chemical risk, but explosion hazard could exist

HW14 - no contaminants of concern

HW17 - no contaminants of concern

HW19 - chromium = 3.2 ug/L (HW19-F); SL (Cr+6) = 3.1 ug/L; SL (Cr+3) = 16,000 ug/L
chromium = ND in HW19 and HW19-P
no significant risk

HW24 - lithium = 204 ug/L (HW24) and 201 ug/L (HW24-P); SL = 31 ug/L
lithium = ND in HW24-F
HQ = up to 6.6; will prepare detailed memo explaining findings

Dawn A. Ioven, toxicologist
U.S. EPA - Region III
(3HS41)

1650 Arch street
Philadelphia, PA 19103
215.814.3320